

**CURRICULUM VITAE**

4.4.04

Oded Shoseyov. The Institute of Plant Science and Genetics in Agriculture and The Otto Warburg Center for Agricultural Biotechnology, The Hebrew University of Jerusalem, The Faculty of Agriculture, Food and Environmental Quality Sciences, P.O.B. 12 Rehovot 76100, Israel.

Personal:

Birth : July 31, 1956; Rehovot, Israel.

Nationality: Israeli.

Status: Married + three children.

IDF military service: 3.5 years of active duty and currently as a Major in the reserve force.

Home address: 5 Erez, Karmei Yosef

Education:

B.Sc. with excellence, 1981, The Hebrew University of Jerusalem.

M.Sc. with excellence, 1983, The Hebrew University of Jerusalem.
Thesis: Out of season grape production by one year old cuttings.

Ph.D. awarded *SUMMA CUM LAUDE*, 1988 The Hebrew University of Jerusalem, Thesis: The effect of the chemical composition of must on wine quality.

Postdoctoral research. Department of Biochemistry and Biophysics University of California Davis. May 1988 - August 1990.

Academic position:

Assoc. Professor since April 2002

Senior Lecturer October 1994-April 2002.

Lecturer October 1990 to September 1994.

Awards:

The Outstanding Scientist Polak Award for 2002

The 1999 Kay Award for innovative and applied research.

Elected by the students to the list of the best lecturers of the Hebrew University of Jerusalem at 1998-1999 academic year.

Other professional activities:

Scientific founder of CBD-Technologies Inc. A Biotech company established at 1995.

-Scientific co-founder of Fulcrum SP Ltd. A Biotech company established 2001.

Member of the Otto Warburg Center for Agricultural Biotechnology. 1991-present.

Sabbatical year 7.96-7.97 at the Laboratory of Biotechnology at University of British Columbia Vancouver Canada.

Member of the organizing committee for the 1996 International OIV Congress.

Member of a Agricultural Biotechnology Delegation of the Israeli Academy of Science to China. 1997.

Member of the Agricultural Biotechnology Delegation of the Israeli Ministry of Science to Korea 1998.

Member of the organizing committee for the 1996 Third International Symposium on in vitro culture and horticultural breeding. ISHS.

Member of the library committee of the Faculty of Agriculture 1995-1997.

Member of BARD competitive grant scientific peer review committee, for Horticulture 1991-1994.

Member of the scientific peer review committee for Horticulture of the Ministry of Agriculture Chief Scientist. 1991-1994.

Member of the scientific peer review steering committee for Horticulture ("MOP") of the Ministry of Agriculture Chief Scientist 1993 – 1995.

Elected representative of the Lecturers in the Council of the Faculty of Agriculture and the Senate of the Hebrew University of Jerusalem 1993-1994.

Member of the steering committee for Biotechnology of the Hebrew University (2002-present)).

Member of the infrastructure committee of the Hebrew University (2002-present)

Member of the Biotechnology committee of the Israeli National Council of High Education (2002-present).

Member in scientific societies

Member of the International Society of Plant Molecular Biology.

Member of the American Society of Microbiology.

Member of the Israeli Society of Plant Tissue Culture and Molecular Biology.

Member of the Israeli Society of Microbiology.

Member of the Israeli Society of Carbohydrates.

LIST OF PUBLICATIONS.

Theses.

1. Shoseyov O. (1988). The effect of the chemical composition of the must on the quality of the wine. Ph.D. Thesis The Hebrew University of Jerusalem. (Supervisors: Prof. B. Bravdo and Prof. R. Ikan).

Chapters in Proceedings and Books.

2. Bravdo, B., S. Shoseyov and S. Lavee (1986). The effect of ethephon on photosynthesis of grapevines. In: Dejong T.M. ed. Regulation of photosynthesis in fruit crops. International Workshop U.C. Davis, CA.
3. Shoseyov, O., B. Bravdo, R. Ikan and I. Chet. (1987). Monoterpene glycoside hydrolysis by beta-glucosidase from immobilized *Aspergillus niger*. Proc. Int. Symp. The aromatic substances in grapes and wines. eds: A. Scienza and G. Versini. pp. 63-71.
4. Bravdo, B., O. Shoseyov, R. Ikan and A. Altman (1987). Free and bound monoterpene content of leaves and berries and their biosynthesis by *in vitro* grown berries. Proc.Int.Symp. The aromatic substances in grapes and wines. eds: A. Scienza and G.Versini. pp. 55-62.
4. Cohen, S., O. Shoseyov and B. Bravdo (1987). The relationship between aroma, color and monoterpene content of non muscat varietal wines. Proc.Int.Symp. The aromatic substances in grapes and wines. eds: A. Scienza and G. Versini. pp. 279-288.
4. Shoseyov, O., and M. Dekel-Reichenbach (1992). The role of endo-1,4-beta-glucanase in plant cell elongation. In-vitro studies of peach pollen. Acta Hort.329: 225-227.
4. Droby S., M. Wisniewski, C. Wilson, A. Avraham, O. Shoseyov and E. Chalutz. (1992) Possible modes of action of yeast antagonists of postharvest diseases. IOBC-EFPP workshop Nov. 1992 Wageningen, Holand Bul. OILB/SROP 16:186-189.
8. Doi R.H., M. Takagi, M.A. Goldstien, S. Hashida, O. Shoseyov, and M. McGloughlin (1993). Biotechnology approaches to problems in agriculture; analysis of *Clostridium cellulovorans* Cellulase. In:

BIOTECHNOLOGY, Theory and Applications, eds. Tien W., S.F. Chen, L. Lo, and Y.T. Shyu. The Third Pacific Rim Biotechnology Conference. Development Center for Biotechnology.

9. Ikan R., V. Weinsten, Y. Milner, B. Bravdo, and O. Shoseyov, D. Siegel A. Altman and I. Chet. Natural glycosides as potential odorants and flavorants. In: International Symposium on Medical and Aromatic Plants, eds. Palevitch D. and E. Putievskiy. Tiberias, Israel March 1993.

10. Doi R.H., M.A. Goldstien, J.S. Park, C.C. Liu, S. Hashida, Y. Matano, M. Takagi, S. Hashida, F.C. Foong, T. Hamamoto, I. Segel and O. Shoseyov. Structure and Function of the Subunits of the *Clostridium cellulovorans* cellulosome. In: Genetics, Biochemistry, and Ecology of Lignocellulose Degradation, eds. Shimada K., K. Ohmiya, Y. Kobayashi, S., Hoshino, K. Sakka and S. Karita. pp 43-52. Uni Publishers, Tokyo, Japan, 1994.

10. Altman A., A. Ya'ari, D. Pelah, A. Gal, T. Tzfira, W-X, Wang, O. Shoseyov, A. Vainstein and J. Riov.(1995) In vitro organogenesis, transformation and expression of drought-related proteins in forest tree cultures. In: Current Issues in Plant Molecular and Cellular Biology ed. M. Terzi. pp. 87-94. Kluwer Academic Publishers. Netherlands.

10. Pelah D., A. Ya'ari, A. Altman O. Shoseyov, and J. Riov. Growth, in vitro propagation and desiccation-specific proteins of *Populus* and *Pinus* tissues. Proc. IVFRO, Beijing, 1994.

13. Altman, A., D. Pelah, O. Yarnitsky, T. Tzfira, A. Ya'ari, W-X. Wang, O. Shoseyov, A. Vainstein, A. Huttermann and S. Wang (1996). Towards water stress-tolerant poplar and pine trees: Molecular biology, transformation and regeneration. In: M.R. Ahuja, W. Boerjan and D.B. Neal, eds., Somatic Cell Genetics and Molecular Genetics of Trees, pp. 47-56, Kluwer Academic Publishers, Dordrecht.

14. Pelah D, Altman A and Shoseyov O (1997) Drought tolerance a molecular perspective. Proceeding of the Third International ISHS Symposium on In Vitro Culture and Horticultural Breeding. Eds. A Altman and M. Ziv. Acta Horticulturae 447: 439-445.

15. Wang, W., D. Pelah, A. Altman, and O. Shoseyov. (1997). Clonal differences in the expression of a water stress related protein BspA in

populus spp. Proceeding of the Third International ISHS Symposium on In Vitro Culture and Horticultural Breeding. Eds. A Altman and M. Ziv. Acta Horticulturae 447: 467-468.

16. Shoseyov O., E. Shpigel, and L. Roiz (1997) Cellulose-binding domain (CBD) modulates in-vitro elongation of different plant cells. Proceeding of the Third International ISHS Symposium on In Vitro Culture and Horticultural Breeding. Eds. A Altman and M. Ziv. Acta Horticulturae 447: 583-589.

17. Shani Z., E. Shpigel, L. Roiz, R. Goren, B. Vinocur, T. Tzfira, A. Altman. Shoseyov O., Cellulose binding domain, increases cellulose synthase activity in *Acetobacter xylinum*, and biomass of transgenic plants (1999). In: A. Altman, M. Ziv, S. Izhar, eds., Plant Biotechnology and In Vitro Biology in the 21st Century, pp. 213-218 Kluwer Academic Publishers

18. Shani Z., M. Dekel, G. Tzbary, C. S. Jensen, T. Tzfira R. Goren, A. Altman and O. Shoseyov. Expression of Arabidopsis thaliana endo-1,4- β -glucanase (cell) in transgenic plants (1999). In: A. Altman, M. Ziv, S. Izhar, eds., Plant Biotechnology and In Vitro Biology in the 21st Century, pp. 209-212. Kluwer Academic Publishers

19. W. X. Wang, T. Tzfira, N. Levin, O. Shoseyov and A. Altman. Plant tolerance to water and salt stress: The expression pattern of a water stress responsive protein (BspA) in transgenic aspen plants (1999). In: A. Altman, M. Ziv, S. Izhar, eds., Plant Biotechnology and In Vitro Biology in the 21st Century, pp. 561-565. Kluwer Academic Publishers.

19. Doi, R.H., Goldstein, M., Takagi, M., Hashida, S., Shoseyov, O. and Segel, I. (1999). Structure and function of Clostridium cellulovorans cellulase subunits. In Environment, Science and Technology: The Challenge of the 21st Century, p. 479-485. Chulabhorn Research Institute, Bangkok, Thailand

20 Bravdo B. and O. Shoseyov (2000). Aroma studies of fruits and wine in Israel. Acta Hortic. 526: 399-406.

20 Shoseyov O. and B. Bravdo (2001). Enhancement of wine aroma; biotechnological approach. In: Molecular Biology and Biotechnology of Grapevine. Kalliopi A. Roubelakis-Angelakis, Editor. pp. 225-237. Kluwer Publishers.

22 Oded Shoseyov, Ilan Levy, Ziv Shani, and Shawn Mansfield. Modulation of wood fibers and paper by cellulose binding domains (CBDs). Proceedings of *The 223th American Chemical Society National Meeting*. April 2002. Orlando, Florida, USA. (In press)

Review articles

24. Shoseyov O., Tsabary G. and Reuveni O. Detection of dwarf somaclones of banana cultivars (*Musa*) by RAPD markers. Pp. 595-601. In *Somaclonal Variation and Induced Mutations in Crop Improvement*. Eds. S. Mohan Jain, D. S. Brar, and B.S. Ahloowalia. (1998) ISBN 0-7923-4162-1 Kluwer Academic Publishers.

25. Shoseyov O., and R.A.J. Warren (1997) Cellulose binding domains- A novel fusion technology for efficient, low cost purification and immobilization of recombinant proteins. in *Novation* 7:1-3.

26. Shoseyov O. (2002) Cellulose binding domains: Industrial and biotechnological application. *Biotechnol. Adv.* 20:191-213.

27. Ilan Levy, Ziv Shani and Oded Shoseyov. (2002) Modification of polysaccharides and plant cell wall by Endo-1,4- β -glucanase (EGase) and Cellulose binding domains (CBD). *Biomol. Eng.* 19:17-30

28. Ilan Levy and Oded Shoseyov (2004). Cross Bridging Proteins In Nature and their Utilization in Bio- and Nanotechnology. (review). *Curr Protein Pept Sci.* 5(1):33-49.

29.. Wang W.X., B. Vinocur, O. Shoseyov and A. Altman (2004) The role of plant heat-shock proteins/molecular chaperones in the abiotic stress response. *Trends in Plant Science*. (in press).

Publications in peer reviewed journals

20. Shoseyov, O., B. Bravdo, R. Ikan and I. Chet (1988). Endo-beta-glucosidase from *Aspergillus niger* grown on a monoterpene glycoside-containing medium. *Phytochemistry* 27:1973-1976.

21. Shoseyov, O., B. Bravdo, D. Siegel, A. Goldman, S. Cohen and R. Ikan. (1990). Iso-geraniol, 3,6-octadiene-3,7-dimethyl-1-ol: A novel monoterpene in *Vitis vinifera* L. c.v. Muscat Roy. *Vitis* 29:159-153.
29. Shoseyov, O., B. Bravdo, D. Siegel, A. Goldman, S. Cohen, L. Shoseyov and R. Ikan. (1990). Immobilized endo-beta-glucosidase enriches flavor of wine and passion fruit juice. *J.Agric.Food Chem.*39:1387-1390.
29. Bravdo, B., O. Shoseyov, R. Ikan and A. Altman. (1990). Monoterpene glycoside biosynthesis in detached grape berries grown *in vitro*. *Physiol. Plant.* 78:93-99.
29. Shoseyov O., T. Hamamoto, F. Foong and R.H. Doi. (1990). Cloning of *Clostridium cellulovorans* endo-1,4-beta-glucanase genes. *Biochem. Biophys. Res. Comm.* 169:667-672.
29. Hamamoto, T., O. Shoseyov, F. Foong and R.H. Doi (1990). A *Clostridium cellulovorans* gene, engD, codes for both endo-beta-1,4-glucanase and cellobiosidase activities. *FEMS microbiol. Lett.* 72:285-288.
29. Shoseyov, O. and R.H. Doi (1990). Essential 170 kDa subunit for degradation of crystalline cellulose by *Clostridium cellulovorans* cellulase. *Proc. Nat. Acad. Sci. USA.* 87:2192-2195.
29. Bruckner, R., O. Shoseyov and R.H. Doi (1990). Multiple active forms of novel serine protease from *Bacillus subtilis*. *Mol. Gen. Genet.* 221:486-490.
29. Shoseyov, O., M. Goldstein, F. Foong, T. Hamamoto and R.H. Doi (1991). Nucleotide sequence of *Clostridium cellulovorans* gene, homologous to cyclic-AMP dependent kinase. *Nucleic Acids Research.* 19:1710.
29. Foong, F., T. Hamamoto, O. Shoseyov and R.H. Doi (1991). Nucleotide sequence and characteristics of endoglucanase gene engB from *Clostridium cellulovorans*. *J. Gen. Microbiol.* 137:1729-1736.

30. Shoseyov, O., M. Takagi, M.A. Goldstein and R.H. Doi (1992). Primary sequence of *Clostridium cellulovorans* cellulose binding protein A (cbpA). Proc. Nat. Acad. Sci. USA. 89:3483-3487.
29. Hamamoto, T., F. Foong, O. Shoseyov and R.H. Doi. (1992) Analysis of functional domains of endoglucanases from *Clostridium cellulovorans* by gene cloning, nucleotide sequencing and chimeric protein construction. Mol. Gen. Genet. 231:472-479.
29. Goldstien, M.A., M. Takagi, S. Hashida, O. Shoseyov, R.H. Doi and I. H. Segel (1993). Characterization of the Cellulose Binding Domain of the *Clostridium cellulovorans* Cellulose Binding Protein A (Cbpa). J. Bacteriol. 175: 5762-5768.
29. Levitov, S., O. Shoseyov and S. Wolf. (1994). Roles of different seed components in controlling tomato seed germination at low temperatures. Scientia. Hort. 56: 197-206.
29. Rotem Y., O. Shoseyov and A. Sztejnberg. (1995). The Roll of 'cellulase' (endo-1,4-beta-glucanase) in gummosis diseases of apricot. J. of Phytopathology 143:7-10.
29. Levitov S., O. Shoseyov and S. Wolf. (1995). Involvement of endomannanase in the control of tomato seed germination under low temperature conditions. Annals of Botany.76: 1-6.
29. Roiz L. and O.Shoseyov (1995) Stigmatic RNase in self-compatible peach (*Prunus persica*) . Int. J. Plant Sci. 156(1):37-41.
29. Pelah D., O.Shoseyov and A. Altman (1995) Characterization of BspA, a major boiling-stable, water-stress-responsive protein in aspen (*Populus tremula*). Tree Physiol. 15:673-678.
29. Lider O., L. Cahalon, D. Gilat, R. HersHKoviz, D. Siegel, R. Margalit, O. Shoseyov and I. R. Cohen (1995). A Disaccharide that inhibits Tumor Necrosis Factor-alfa is formed from the extracellular matrix by the enzyme heparanase. Proc. Nat. Acad. Sci. USA 92:5037-5041.

39. Roiz, L., R.Goren and O. Shoseyov. (1995) Stigmatic RNase in calamondin (*Citrus reticulata* var. *austera* x *Fortunella* sp.). *Physiol. Plant.* 94:585-590.
29. Izhaki, A., O. Shoseyov and D. Weiss (1995). A petunia cDNA encoding S-adenosylmethionine synthetase. *Plant Physiol.* 108(2):841-2.
29. Birk, R., B., Bravdo and O. Shoseyov (1996). Detoxification of cassava by *Aspergillus niger* B-1. *App. Microbiol. Biotechnol.* 45(3): 411-414.
29. Izhaki, A., O. Shoseyov and D. Weiss (1996). Temporal, spatial and hormonal regulation of the S-adenosylmethionine synthase gene in petunia. *Physiol. Plant.* 97:90-94.
29. Pelah D, Wang W-X, Altman A, Shoseyov O and Bartels D (1997) Differential Accumulation of water-stress related proteins in populus species which differ in their water-stress response. *Physiol Plant* 99:153-159.
29. Birk, R., Ikan, A., Bravdo, B, Braun, S., and O. Shoseyov (1997). Synthesis of isopropyl-1-thio- β -D-glucopyranoside (IPTGlc), an inducer of *Aspergillus niger* B1 β -glucosidase production. *App. Biochem. and Biotechnol.* 66: 25-30.
29. Shani, Z., Dekel M., Tsabary G., and O Shoseyov (1997). Cloning and characterization of elongation specific endo-1,4- β -glucanase (*cel1*) from *Arabidopsis thaliana*. *Plant Mol.Biol.* 34: 837-842.
29. Pelah D., O.Shoseyov, A. Altman and D. Bartels (1997). Water-stress response in aspen (*Populus tremula*): Differential accumulation of dehydrin, sucrose synthase, GAPDA homologues, and soluble sugars. *J. Plant Physiol.* 151: 96-100.
29. Shpigel E., L. Roiz R. Goren and O. Shoseyov (1998) Bacterial Cellulose-Binding Domain Modulates in Vitro Elongation of Different Plant Cells. *Plant Physiol.* 117: 1185-1194.

48. Shpigel E., D. Elias, I.R. Cohen and O. Shoseyov (1998) Production and purification of a recombinant human hsp60 epitope using the cellulose-binding domain in *Escherichia coli*. Protein Expression & Purification 14: 185-191.
49. Rechter M., O. Lider, L. Cahalon, E. Baharav, M. Dekel, D. Seigel, I. Vlodavsky, H. Aingorn, I. Cohen and O. Shoseyov. (1999). A Cellulose-Binding Domain-Fused to Recombinant Human T Cell Connective Tissue Activating Peptide-III Manifests Heparanase Activity. Biochem.Biophys. Res. Com. 225: 657-662.
50. Shpigel, E., A. Goldlust, G. Efroni, A. Avraham, A. Eshel, M. Dekel, and O. Shoseyov (1999). Immobilization of recombinant heparinase I fused to cellulose-binding domain. Biotechnology and Bioengineering 65(1): 17-23.
51. Maurice, S., H. Dietland, M. Dekel, R. Friedman, A. Gertler and O. Shoseyov. (1999). A-Protein from achromogenic atypical *Aeromonas salmonicida*: molecular cloning, expression, purification, and characterization. Protein Expression and Purification. 16:396-404.
52. Roiz L., Ozeri U., Goren R. and O. Shoseyov. (2000). Characterization of *Aspergillus niger* B-1 RNase and its inhibitory effect on pollen tube growth in some fruit trees. J. Am. Soc. Hort. Sci. 121(1):9-14.
53. Shani Z., Dekel M., Jensen C. S., Tzfira T., Goren R. (R), Altman A. (R) and Shoseyov O. (2000) *Arabidopsis thaliana* endo-1,4- β -glucanase (*cel1*) promoter mediates *uidA* expression in elongating tissues of aspen (*Populus tremula*). J. Plant Physiol. 156: 118-120.
54. Siegel D., I. Marton, M., Dekel, B. Bravdo, S. He, S.G. Withers, and O. Shoseyov (2000). Cloning, expression, characterization and nucleophile identification of family 3, *A. niger* β -glucosidase. J. Biol. Chem. 275(7): 4973-4980.
55. Kauffmann C., E. Shpigel, E. A. Bayer, R. Lamed, Y. Shoham, R. Mandelbaum, and O. Shoseyov (2,000) A novel methodology for enzymatic removal of atrazine from water by

CBD-fusion protein immobilized on cellulose. *Environ. Sci. Technol.* 34(7):1292-1296.

29. Shpigel E., A. Goldlust, A. Eshel, I. Kaplan Ber, G. Efroni, Y. Singer, I. Levi, M. Dekel, and O. Shoseyov (2000). Expression, purification and applications of staphylococcal protein A fused to cellulose-binding domain. *Biotechnology and Applied Biochemistry* 31(3)-197.

29. Neta-Sharir I., O., Shoseyov and D. Weiss (2000). Sugar enhance the expression of gibberlin-induced genes in developing petunia flowers *Physiol. Plant.* 109:196-202.

29. Levy I., and O. Shoseyov (2001). Expression refolding and indirect immobilization of horseradish peroxidase (HRP) to cellulose via a phage selected peptide and cellulose binding domain (CBD). *J. Peptide Science.* 7: 50-57.

29. Regev G., M. Dekel O. Shoseyov and Z. Kerem (2001) Resveratrol and a novel tyrosinase in Carignan grape juice. *J. Agric. Food Chem.* 49(3): 1479-1485.

29. Ilan Levy, Amos Nussinovitch, Etai Shpigel and Oded Shoseyov. (2002) Recombinant cellulose crosslinking protein: a novel paper-modification biomaterial. *Cellulose* 9:91-98.

29. Galit Tsabary, Ziv Shani, Levava Roiz, Ilan Levy, Joseph Riov and Oded Shoseyov. (2003) Abnormal "wrinkled" cell walls and retarded development of transgenic *Arabidopsis thaliana* plants expressing endo-1,4- β -glucanase (cell) antisense. *Plant Mol. Biol.* 15:213-224

29. Ayelet Fishman, Ilan Levy, Uri Cogan and Oded Shoseyov. (2002) Stabilization of horseradish peroxidase in aqueous-organic media by immobilization onto cellulose using a cellulose-binding domain. *J. Mol. Catal. B-Enzym.* 18:115-125.

29. Wang WX, Pelah D., Alegrant T., Shoseyov O., and A. Aaltman (2002). Characterization of SP1, a stress-responsive, boiling-soluble, homo-oligomeric protein from aspen. *Plant Physiology* 130(2): 865-75.

64. Ilan Levy, Gary Ward, Yitzhak Hadar, Oded Shoseyov and Carlos G. Dosoretz. (2003). Oxidation of 4-bromophenol by recombinant cellulose binding domain horseradish peroxidase fused protein immobilized to cellulose. *Biotech. Bioeng.* (In press).
65. Maurice S, Dekel M, Shoseyov O, Gertler A. (2003). Cellulose beads bound to cellulose binding domain-fused recombinant proteins; an adjuvant system for parenteral vaccination of fish. *Vaccine*. 21:3200-7.
66. Ilan Levy, Tzur Paldi, Dan Siegel and Oded Shoseyov (2003) Cellulose binding domain from *Clostridium cellulovorans* as a paper modification reagent. *Nordic Pulp and Paper Research Journal*. 18:421-7.
67. Regev-Shoshani G, Shoseyov O, Bilkis I, Kerem Z. (2003) Glycosylation of resveratrol protects it from enzymic oxidation. *Biochem J*. 374:157-63.
68. Tsabary Galit, Ziv Shani, Levava Roiz, Ilan Levy, Joseph Riov and Oded Shoseyov. (2003) Abnormal "wrinkled" cell walls and retarded development of transgenic *Arabidopsis thaliana* plants expressing endo-1,4- β -glucanase (*cel1*) antisense. *Plant Mol. Biol.* 15:213-224.
69. Tzur Paldi, Ilan Levy and Oded Shoseyov.(2003) Starch binding domain from *Aspergillus niger* B1: molecular cloning, and functional characterization. *Biochem. J*. 372:905-10.
70. Ilan Levy, Gary Ward, Yitzhak Hadar, Oded Shoseyov and Carlos G. Dosoretz.(2003) Oxidation of 4-bromophenol by recombinant cellulose binding domain horseradish peroxidase fused protein immobilized to cellulose. *Biotech. Bioeng.* 82:223-31.).
71. Wang W.X., O. Dgany, O. Dym A. Altman O. Shoseyov and O. Almog(2003) Crystallization and preliminary X-ray crystallographic analysis of SP1, a novel chaperone-like protein. *Acta Crystallogr D Biol Crystallogr*. 59:512-4.

72. Ilan Levy, Tzur Paldi and Oded Shoseyov (2004) Engineering a bifunctional starch-cellulose cross-bridge protein. *Biomaterials*. 25:1841-9.

29. Shu Wei, Ira Marton, Mara Dekel, Dror Shalitin , Efraim Lewinsohn, Ben-Ami Bravdo, and Oded Shoseyov (2004) Manipulating volatile emission in tobacco leaves by expressing *Aspergillus niger* β -glucosidase in different subcellular compartments. *Plant Biotechnol. J* (in press)

Patents

29. Shoseyov, O., B. Bravdo and R. Ikan . High volume "on column" injector for head space analysis in fused silica capillary column. Israel patent No. 84616, 1987
29. Shoseyov, O. B. Bravdo , R. Ikan and I. Chet. Production and utilization of specific endo-beta-glucosidase for food, wine and perfume industries. Israel patent No. 8290-2 1987.
29. Cohen I. R., O. Lider, L. Cahalon, O. Shoseyov and R. Margalit. (1999). Methods for regulation of active TNF-alfa. U.S. patent 5,861,382.
29. Shoseyov O., L. Roiz, U. Ozeri, B. Bravdo and R. Goren. (1996). Methods for the biological control of pollen in plants. U.S. Patent 5,552,139.
29. Shoseyov O., I. Shpigel, Goldstien, M.A., and R.H. Doi. (1996). Nucleic acids encoding a cellulose binding domain. U.S. Patent 5,496,934
29. Shoseyov, O., Shpigel, I., Goldstein, M.A., and Doi, R.H. (1995). Methods of use of cellulose binding domain. US Patent 5,670,623
29. Shoseyov, O. (1998). Kits and methods of detection using cellulose binding domain fusion proteins. US Patent 5,738,984
29. Shoseyov, O., Shpigel, I., Goldstein, M.A., and Doi, R.H. (1999). Methods of detection using of cellulose binding domain fusion product. US Patent 5,856,201
29. Shoseyov, O. Shpigel, E. Goldstein, M. A. Doi, R. H. (1998) Cellulose Binding Domains Fusion Proteins. US Patent 5,719,044
29. Shoseyov, O., Shpigel, I., Goldstein, M.A., and Doi, R.H. (1998). Cellulose Binding Domain Proteins. US Patent 5,837,814
29. Shoseyov, O. Shani, Z. Shpigel, E. (2001). Transgenic plants of altered morphology. US patent 6,184,440.

85. Shoseyov, O. Shani, Z. (1999). *Arabidopsis Thaliana* Endo-1,4- β -glucanase gene, promoter and protein. US patent allowed
86. Kilburn, D., Warren, R.A.J., Stoll, D., Gilkes, N.R., Shoseyov, O., Shani, Z.. (1998). Use of mannan binding domain to alter plant morphology. US patent pending
87. Siegel, D., Shoseyov, O (1999). Method of releasing solid matrix affinity adsorbed particulates. US patent pending.
88. Siegel, D., Shoseyov, O (1999). Method of concentrating microorganisms using affinity separation US patent pending.
89. Shani, Z. , Shoseyov, O (1999). Process of expressing and isolating recombinant protein products from plants, plant derived tissues or cultured plant cells. US patent pending.
90. Cohen I. R., O. Lider, L. Cahalon, O. Shoseyov and R. Margalit. (2001). Compositions for regulation of cytokines. European Patent 0669827.
91. Ilan levy, Amos Nussinovitch and Oded Shoseyov. Modification of polysaccharide containing materials. PCT, WO 01/34091 A2.

Papers in non-reviewed journals.

92. Shoseyov, O., B. Bravdo, R. Ikan and I. Chet and D. Siegel (1988). The improvement of wine quality. Ladaat 18:3-4 (Hebrew).
93. Shoseyov O. (1999). Cellulose binding proteins and their applications. Chemistry 46: 20-23 (Hebrew).
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29. Shoseyov O. Why plant cellulases lack CBDs. Gordon Research Conference on "Cellulases and Cellulosomes". July 1999 Proctor Academy, New Hampshire USA. (Invited speaker).

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